

Claims

1. Antimicrobial composition comprising a system of lysozyme and glycosylated immunoglobulins.
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2. Antimicrobial composition according to claim 1 for local use on mucosal membranes and/or skin.
- 10 3. Antimicrobial composition according to claim 1, wherein said glycosylated immunoglobulins have affinity to Gram negative bacteria.
4. Antimicrobial composition according to claim 3, wherein the Gram negative bacteria are rods and/or cocci or a combination thereof.
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5. Antimicrobial composition according to claim 1, wherein said glycosylated immunoglobulins have affinity to Gram positive bacteria.
- 20 6. Antimicrobial composition according to claim 1, wherein said glycosylated immunoglobulins have affinity to viruses.
7. Antimicrobial composition according to claim 3, wherein the glycosylated immunoglobulins have affinity to antigen determinants on the cell wall of Gram negative bacteria.
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8. Antimicrobial composition according to claim 1, wherein the glycosylated immunoglobulins are of monoclonal or polyclonal origin.
9. Antimicrobial composition according to claim 1, wherein the glycosylated immunoglobulins are of monoclonal and/or polyclonal origin or a combination thereof.
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10. Antimicrobial composition according to claim 1, wherein the glycosylated immunoglobulins are of the classes IgM, IgG, IgY, IgA or dimer IgA.
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11. Antimicrobial composition according to claim 1, wherein the glycosylated immunoglobulins are of the IgG class and/or the IgY class.
12. Antimicrobial composition according to any of the preceding claims, wherein the glycosylated immunoglobulins are intact and/or resistant to proteases such as bacterial proteases and/or pancreatic proteases.
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13. Antimicrobial composition according to any of the claims 1 to 11, wherein the glycosylated immunoglobulins are intact and/or resistant to proteolytic enzymes
10 such as papain and/or bromelain and/or pepsin.
14. Antimicrobial composition according to any of the claims 1 to 11, wherein the glycosylated immunoglobulins are intact and/or resistant to acidic conditions such as in gastric juice.
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15. Antimicrobial composition according to any of the claims 1 to 11, wherein the glycosylated immunoglobulins have lost their ability of complement fixation.
16. Antimicrobial composition according to claim 1, wherein the glycosylated
20 immunoglobulins originate from a biological fluid such as milk, whey, blood, plasma, colostrum, yolk or serum.
17. Antimicrobial composition according to claim 1, wherein the glycosylated immunoglobulins originate from a biological fluid such as milk and/or colostrum
25 and/or yolk and/or a combination thereof.
18. Antimicrobial composition according to claim 1, wherein the glycosylated immunoglobulins originate from immunized animals and/or non-immunized animals.
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19. Antimicrobial composition according to claim 1, wherein the lysozyme is native or conjugated.
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20. Antimicrobial composition according to claim 19, wherein the lysozyme is conjugated to a monosaccharide.

21. Antimicrobial composition according to claim 20, wherein the lysozyme is conjugated to mannose.
- 5 22. Antimicrobial composition according to claim 1, wherein the lysozyme is extracted from egg white.
- 10 23. Antimicrobial composition according to claim 1, wherein the antimicrobial composition is selected from the groups of a cream, an ointment, a gel, a wet tissue, a tablet to chew, a lozenge and chewing gum.
24. Antimicrobial composition according to claim 1, wherein the antimicrobial composition is in the form of a lozenge or chewing gum.
- 15 25. Antimicrobial composition according to claim 1, wherein said lysozyme constitutes in the range of 0.05% to 10% by weight of of the composition.
- 20 26. Antimicrobial composition according to claim 1, wherein said glycosylated immunoglobulins constitute in the range of 0.1% to 10% by weight of of the composition.
27. Antimicrobial composition, comprising lysozyme conjugated to a monosaccharide.
- 25 28. Antimicrobial composition according to claim 27, comprising lysozyme conjugated to mannose.
- 30 29. A method for the preparation of the antimicrobial composition according to any of the claims 1-26 comprising the steps of
 - b) obtaining immunoglobulins
 - c) glycosylating the immunoglobulins
 - d) obtaining native or conjugated lysozyme

- e) mixing the glycosylated immunoglobulins and the lysozyme, and optionally adding additives, thereby obtaining the antimicrobial composition.

5 30. A method for the preparation of the antimicrobial composition according to any of claims 27 to 28 comprising the steps of

- a) obtaining the lysozyme
- b) conjugating the lysozyme.

10 31. Use of lysozymes and glycosylated immunoglobulins for the preparation of an antimicrobial composition as defined by any of the claims 1-26.

32. Use of lysozymes and glycosylated immunoglobulins for the preparation of an antimicrobial composition as defined by any of the claims 1-26 for the
15 prophylaxis and/or treatment of an infection.

33. Use of a conjugated lysozyme for the preparation of an antimicrobial composition as defined by any of the claims 27-28.

20 34. Use of a conjugated lysozyme for the preparation of an antimicrobial composition as defined by any of the claims 27-28 for the prophylaxis and/or treatment of an infection.

25 35. A method of preventing and/or treating an infection in an animal, including a human, comprising administering to said animal an effective amount of the composition as defined in any of claims 1-28.